

# Nitro<sup>®</sup>

## 2% Nitrogen Infused Acrylic Pendant



Nitro (23W, 36W, 51W)

### PROJECT:



Nitro (70W)



Nitro (94W)

### Features

Nitro A16 is a high performance architecturally styled pendant for ambient and general lighting applications in retail and supermarket spaces. Offered with various wattages ranging from 27 watts to 94 watts. A 16 inch 2% nitrogen infused refractor surrounds the source, reducing glare and providing a comfortable ambient light level. With a choice of flood, wide flood or very wide flood distributions, the Nitro LED is a great replacement for CMH or CFL sources.

### Product Overview

Type:	Round Pendant
Wattage:	23, 36, 51, 70, 94
Lumen Output:	up to 6,361; up to 90 lm/W
CBCP:	up to 14,414
Color Temp:	2700K, 3000K, 3500K, 4000K, Class A
CRI:	83 typ. (2700K, 3000K, 3500K, 4000K) 90+ typ. (2700K, 3000K, 3500K) Class A, 3000K LED available
Dimming:	TRIAC & ELV (27W-51W) - 5% Dim 0-10V (canopy mount only) - 1% Dim

### TYPE:

### Performance Chart

Watts	Delivered Lumens	LPW	CBCP	Color Temp
23	2,099	90	5,344	3000K-83
36	2,732	76	6,899	3000K-83
51	3,848	75	9717	3000K-83
70	4,577	65	10,666	3000K-83
94	6,185	66	14414	3000K-83

Data is based on 3000K-83 IES files available on website

Data is based on Flood optics

See pages 5-6 for data on other beam spreads

### Electrical Data

	23W		36W		51W	
	System Watts	Amps	System Watts	Amps	System Watts	Amps
120V	23	0.19	36	0.30	51	0.43
277V	23	0.08	36	0.13	51	0.18

	70W		94W	
	System Watts	Amps	System Watts	Amps
120V	70	0.58	94	0.78
277V	70	0.25	94	0.34

Electronic constant current LED driver



**5** year limited warranty  
AMERLUX LED

**PROJECT:**

**TYPE:**

**Ordering Information**



- |  |   |
|--|---|
| <p><b>1</b> <u>Model</u><br/>NIT</p> <p><b>2</b> <u>Wattage</u><br/>23<br/>36<br/>51<br/>70<br/>94</p> <p><b>3</b> <u>Housing Finish</u><br/>WT - white texture<br/>BT - black texture<br/>ST - silver texture<br/><i>For other RAL colors, consult factory</i></p> <p><b>4</b> <u>Mounting</u><br/>C4 - canopy, 4' stem* length<br/>C8 - canopy, 8' stem* length<br/>B4 - busway (B40, B50, B60c), 4' stem* length<br/>B8 - busway (B40, B50, B60c), 8' stem* length<br/>CCL-SCP4 - C-Clamp with straight cord (6'), 4' stem* length<br/>CCL-SCP8 - C-Clamp with straight cord (6'), 8' stem* length<br/>CCL-CCP4 - C-Clamp with coil cord (12" length at rest/5' extended), 4' stem* length<br/>CCL-CCP8 - C-Clamp with coil cord (12" length at rest/5' extended), 8' stem* length<br/>*Field cuttable<br/><i>For custom lengths, consult factory</i></p> | <p><b>5</b> <u>Voltage</u><br/>120 (for C-Clamp mounting option only)<br/>120-277</p> <p><b>6</b> <u>Beam Spreads</u><br/>FL - flood, 35°<br/>WF - wide flood, 45°<br/>VWF - very wide flood, 65°</p> <p><b>7</b> <u>Color Temp</u><br/>83 CRI                      90+ CRI<br/>27 - 2700K-83            279 - 2700K-90+      3CLA - Class A<br/>30 - 3000K-83            309 - 3000K-90+<br/>35 - 3500K-83            359 - 3500K-90+<br/>40 - 4000K-83</p> <p><b>8</b> <u>Driver</u><br/>LE/TE - TRIAC/ELV dimming, 5% dim (23W-51W only)<br/>O-10V - 0-10V dimming, 1% dim (canopy mount only)<br/>ND - non-dimming (all wattages)</p> |
|--|---|

**PROJECT:**

**TYPE:**

**Specifications**

**Application**

Retail and supermarket ambient and display lighting

**Construction**

Extruded aluminum heat sink and driver enclosure  
Formed sheet metal  
Acrylic 2% nitrogen infused refractor

**Optical**

Beam Spread Options:  
Flood 35°, Wide Flood, 45°, Very Wide Flood 65°

**LED**

Color Temp Options:  
2700K, 3000K, 3500K, 4000K  
CRI: 83 typ. (2700K, 3000K, 3500K, 4000K)  
90+ typ. (2700K, 3000K, 3500K)  
Class A\*, 3000K LED available  
R9 Values: 11 (83 CRI), 55 (92 CRI)  
Binning: 3 MacAdam (SDCM)  
Life: 50,000+ hrs, > 70% of initial lumens at 50,000 hrs  
*\*Class A LED: Class A LED's have a CRI > 80 and a GAI > 80. CRI defines color "Naturalness" and GAI defines color "Saturation." Both being high delivers rich colors and pure whites.*

**Electrical**

Wattage: 23, 36, 51, 70, 94  
Electronic constant current LED driver, 120V or 277V input  
**This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Amerlux® recommends using additional surge protection with this unit (supplied by others), surge and over voltage damage is not covered under warranty.**

**Drivers**

LE/TE - Leading Edge, TRIAC, forward phase/Trailing Edge, ELV, reverse phase (23W-51W only)  
0-10V dimming available (canopy mount only)  
ND - non-dimming (all wattages)  
*See pages 7 for more dimming information*  
**Note: Mounting and wattage affects dimming options available, see chart below**

**Finish**

Powder coat paint  
*Consult factory for custom finishes*

**Mounting**

Canopy, Busway or C-Clamp

**Certifications**

CSA tested to UL standards  
Indoor use only

**Warranty**

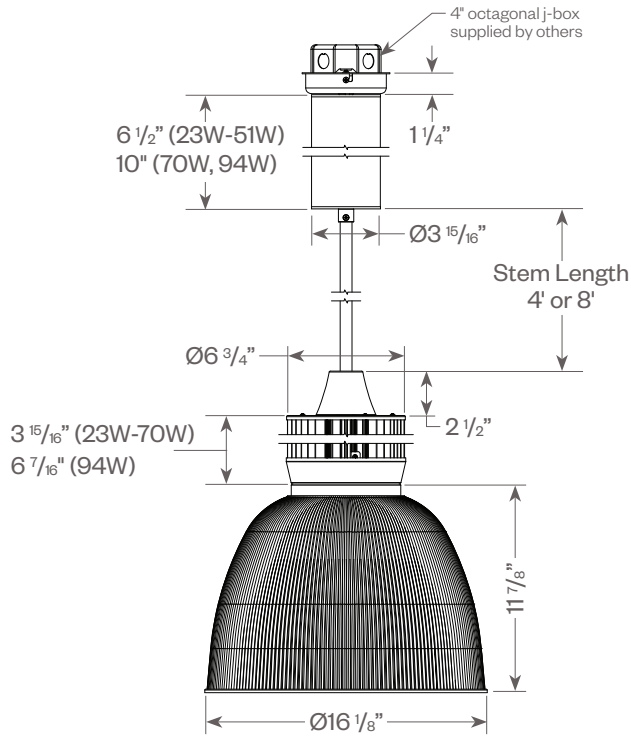
5 year limited warranty

**Dimming Options Depending on Selected Mounting and Wattage:**

Wattage	Canopy Mount	Busway Mount	C-Clamp Mount
23	ND, 0-10V, LE/TE	ND, LE/TE	ND, LE/TE
36	ND, 0-10V, LE/TE	ND, LE/TE	ND, LE/TE
51	ND, 0-10V, LE/TE	ND, LE/TE	ND, LE/TE
70	ND, 0-10V	ND	ND
94	ND, 0-10V	ND	ND

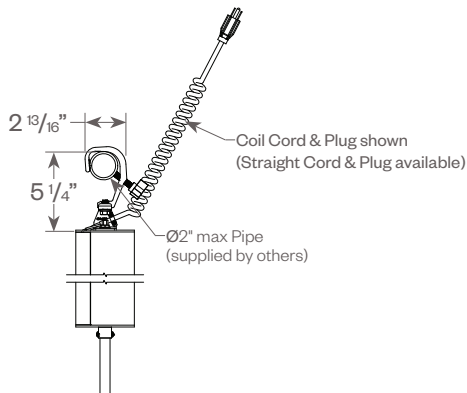
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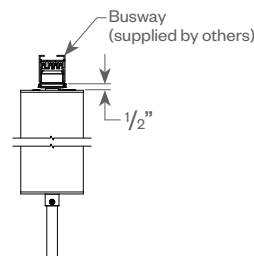


Canopy Mount Option

### Additional Mounting Options:



C-Clamp Mount Option



Busway Mount Option

**PROJECT:**

**TYPE:**

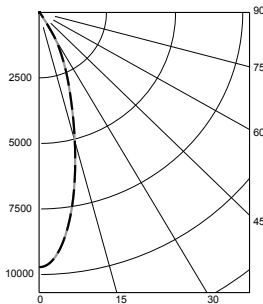
**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

**MULTIPLYING FACTORS:** (Multiplying Factor is based on 3000K-83 120V IES file on website)

<b>Wattage:</b>	<b>23W</b>	<b>36W</b>	<b>51W</b>	<b>70W</b>	<b>94W</b>	<b>*FOR 94W DATA SEE PAGE 6</b>				
Factor:	0.55	0.71	1.0	1.4	*					
<b>CCT:</b>	<b>2700K-83</b>	<b>3000K-83</b>	<b>3500K-83</b>	<b>4000K-83</b>	<b>2700K-90+</b>	<b>3000K-90+</b>	<b>3500K-90+</b>	<b>3CLA</b>		
Factor:	0.96	1.0	1.02	1.04	0.80	0.83	0.87	0.75		

**51W LED, 3000K-83**

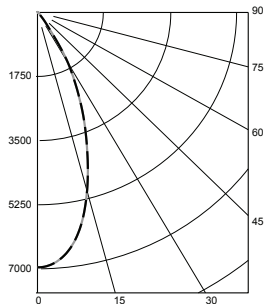
**Flood (FL) Distribution, 35°**  
LTL #1234418  
Lumens: 3848 Lm/W



**Candelas at Nadir**

Deg	Candela
0	9717
5	9033
15	5120
25	2230
35	349
45	93

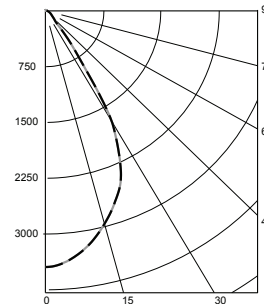
**Wide Flood (WF) Distribution, 45°**  
LTL#1234419  
Lumens: 3908 Lm/W



**Candelas at Nadir**

Deg	Candela
0	6958
5	6762
15	5014
25	2605
35	519
45	100

**Very Wide Flood (VWF) Distribution, 65°**  
LTL # 1234420  
Lumens: 3204 Lm/W

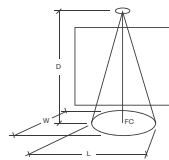


**Candelas at Nadir**

Deg	Candela
0	3444
5	3373
15	2966
25	2316
35	752
45	168

**Application Data:**

		0° Aiming Angle Horizontal Footcandles			
		D	FC	L	W
Flood	7.5'	167	3.9	3.9	
	10.0'	95	5.3	5.3	
	12.5'	61	6.6	6.6	
	15.0'	43	7.9	7.9	
wide Flood	7.5'	120	5.2	5.2	
	10.0'	68	7.0	7.0	
	12.5'	44	8.7	8.7	
	15.0'	31	10.4	10.4	
Very Wide Flood	7.5'	59	7.1	7.1	
	10.0'	34	9.5	9.5	
	12.5'	22	12.0	12.0	
	15.0'	16	14.6	14.6	



**Notes and Definitions:**

- Beam spread is to 50% center beam candlepower (CBCP).
- D**=Distance to floor or wall.
- FC**=Footcandles on floor or wall at center beam aiming location.
- L**=Effective Visual Beam length in feet (50% of maximum footcandle level).
- W**=Effective Visual Beam width in feet (50% of maximum footcandle level).
- CB**=Distance across or down to center beam location.

**PROJECT:**

**TYPE:**

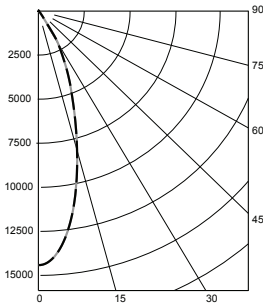
**FIXTURE DATA:** (Complete photometric data (.ies format) available upon request)

**MULTIPLYING FACTORS:** (Multiplying Factor is based on 3000K-83 120V IES file on website)

<b>Wattage:</b>	<b>23W</b>	<b>36W</b>	<b>51W</b>	<b>70W</b>	<b>94W</b>	<b>*FOR 51W DATA SEE PAGE 5</b>				
Factor:	0.25	0.38	*	0.74	1.0					
<b>CCT:</b>	<b>2700K-83</b>	<b>3000K-83</b>	<b>3500K-83</b>	<b>4000K-83</b>	<b>2700K-90+</b>	<b>3000K-90+</b>	<b>3500K-90+</b>	<b>3CLA</b>		
Factor:	0.96	1.0	1.02	1.04	0.80	0.83	0.87	0.75		

**94W LED, 3000K-83**

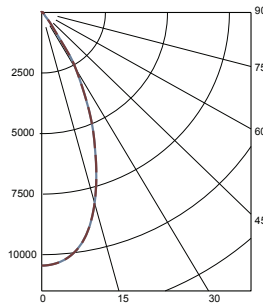
**Flood (FL) Distribution, 35°**  
LTL #1234415  
Lumens: 6185 Lm/W



**Candelas at Nadir**

Deg	Candela
0	14410
5	13550
15	8207
25	3711
35	559
45	154

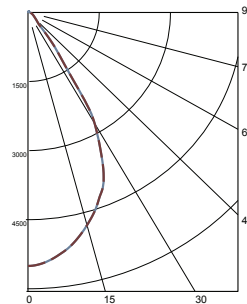
**Wide Flood (WF) Distribution, 45°**  
LTL#1234416  
Lumens: 6361 Lm/W



**Candelas at Nadir**

Deg	Candela
0	10450
5	10250
15	8089
25	4376
35	838
45	167

**Very Wide Flood (VWF) Distribution, 65°**  
LTL # 1234417  
Lumens: 5180 Lm/W




**Candelas at Nadir**

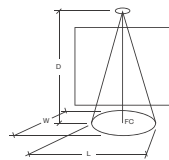
Deg	Candela
0	5505
5	5395
15	4787
25	3749
35	1211
45	274

**Application Data:**

**0° Aiming Angle Horizontal Footcandles**



	D	FC	L	W
<b>Flood</b>	7.5'	247	4.2	4.2
	10.0'	141	5.6	5.6
	12.5'	91	7.0	7.0
	15.0'	64	8.5	8.5
<b>Wide Flood</b>	7.5'	179	5.6	5.6
	10.0'	102	7.4	7.4
	12.5'	66	9.2	9.2
	15.0'	47	11.1	11.1
<b>Very Wide Flood</b>	7.5'	95	7.1	7.1
	10.0'	54	9.6	9.6
	12.5'	35	12.1	12.1
	15.0'	25	14.7	14.7



**Notes and Definitions:**

- Beam spread is to 50% center beam candlepower (CBCP).
- D**=Distance to floor or wall.
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- L**=Effective Visual Beam length in feet (50% of maximum footcandle level).
- W**=Effective Visual Beam width in feet (50% of maximum footcandle level).
- CB**=Distance across or down to center beam location.

**PROJECT:**

**TYPE:**

**DIMMING COMPATIBILITY:**

Amerlux<sup>®</sup> Nitro fixtures are compatible with all major dimming protocols prevalent in the United States. Please see below for general compatibilities and wiring diagrams. Amerlux recommends testing your unique dimming configuration as the exact full configuration (Dimmer, Fixture Quantity, Voltage, etc) may affect dimming performance.

**--- NOTE: INFORMATION BELOW IS FOR WIRED DIMMERS ONLY. FOR WIRELESS DIMMERS, CONSULT FACTORY ---**

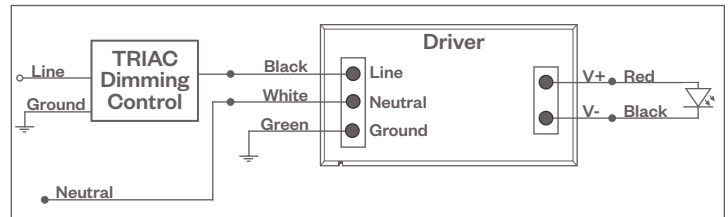
**TRIAC (Forward Phase) DIMMING (Standard)**

Utilizes "Standard" incandescent dimmers that are in wide use in installations across the US. Best for retrofit applications where TRIAC dimmers are installed.

**Notes:**

- 120V or 277V\*
- Dims down to less than 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements per dimming manufacturer

**TRIAC Wiring Diagram**



**Compatible Dimmers†:**

Wall Box (Incandescent Style, Wattage as required)		Central System
Lutron "Diva"	Lutron "Vareo"	Lutron "GP" Panel
Lutron "Nova-T"	Lutron "Skylark"	Lutron Grafik Eye QS
Lutron "Maestro"		

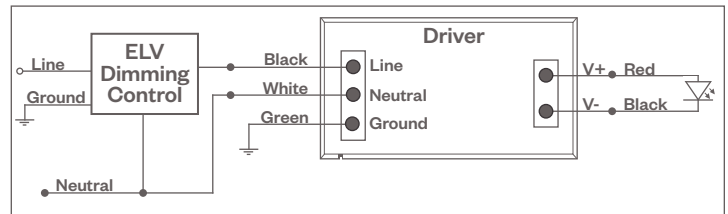
**ELV - Electronic Low Voltage (Reverse Phase) DIMMING (Standard)**

Utilizes specialized "ELV" dimmers.

**Notes:**

- 120V or 277V\*
- Dims down to less than 5% light output (most cases)
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!
- Must meet dimmer Minimum Load Requirements

**ELV Wiring Diagram**



**Compatible Dimmers†:**

Wall Box (ELV Style)		Central System
Lutron "Diva"	Leviton "Surslide"	Lutron "GP" Panel with PHPM-PA Interface
Lutron "Nova-T"	Leviton "Vizio"	Lutron Grafik Eye QS with PHPM-PA Interface
Lutron "Maestro"		
Lutron "Vareo"		
Lutron "Skylark"		

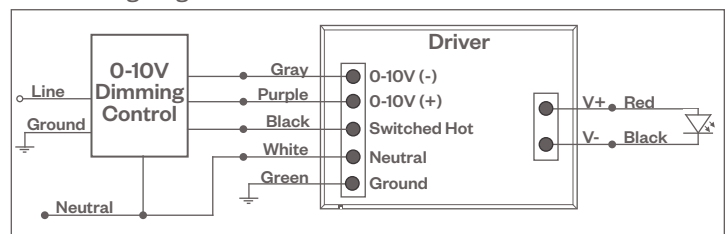
**0-10V - DIMMING (-0-10V Option)**

Integrates into a variety of building management and daylighting controls

**Notes:**

- 120V or 277V\*
- Dims down to 1% light output
- Requires interface to turn off power to driver
- Consult Dimming manufacturer for installation instructions - DO NOT SHARE NEUTRALS!

**0-10V Wiring Diagram**



**Compatible Dimmers†:**

Wall Box	Central System
Lutron "Diva" - DVTV with PP-120H Interface	Leviton Renoir II 0-10V
	Lutron Grafik Eye with GRX-TVI Interface

**Notes:**

- \* Driver is 277V dimmable with appropriate dimmer (by others). All provided wiring diagrams show 120V wiring colors and method. Please refer to 277V dimmer installation instructions for 277V wiring diagrams.
- † The absence of a dimmer from the lists above does not imply incompatibility. Please consult factory for compatibility inquiries.